(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 17 February 2005 (17.02.2005)

PCT

(10) International Publication Number WO 2005/014200 A1

(51) International Patent Classification⁷: 15/04, B21C 37/29

B21J 15/12,

(21) International Application Number:

PCT/EP2004/007915

(22) International Filing Date:

16 July 2004 (16.07.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 0317307.7

24 July 2003 (24.07.2003) GB

(71) Applicant (for all designated States except US): NEWFREY LLC [US/US]; 1207 Drummond Plaza, Newark, DE 19711 (US).

(72) Inventors; and

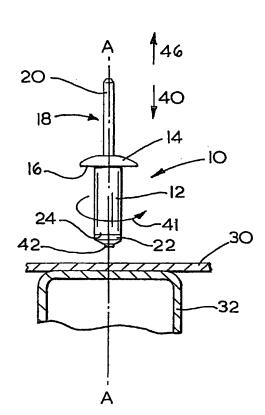
(75) Inventors/Applicants (for US only): SMITH, Daniel,

Robin [GB/GB]; 543 Chester Road South, Kidderminster, Worcestershire DY10 1XH (GB). MORRIS, Stephen, John [GB/GB]; 14 The Moor, Walmley, Sutton Coldfield B76 1SQ (GB).

- (74) Agents: HAAR, Lucas, H. et al.; Haar & Schwarz-Haar, Lessingstrasse 3, 61231 Bad Nauheim (DE).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, FT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: IMPROVED BLIND FASTENER AND METHOD OF SETTING



(57) Abstract: There is disclosed herein a method of connecting together at least two workpieces (30, 32) using a blind rivet (10), which comprises the steps of biasing a blind side end face of a blind rivet (10) against a workpiece (30) and subsequently effecting rotation (41) of the blind rivet (10) whilst in abutment with the workpiece (30) to create a heat weakened region of the workpiece through which the blind rivet (10) can subsequently be inserted by a biasing force less than a biasing force normally required to effect piercing of the workpiece (30, 32) by such a blind rivet (10).



GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.